



Calendar for the Week.

Wednesday, Jan. 11—4 p.m.—Levana Society.

5 p.m.—Band practice.

Thursday, Jan. 12—4 p.m.—Y.M.C.A.

5 p.m.—Students' Orchestra.

Friday, Jan. 13—4 p.m.—Theological Society—Prof. McClement.

5 p.m.—Aesculapian Society.

8 p.m.—Hockey—Queen's vs Toronto, Covered Rink.

Saturday, Jan. 14—11.00 a.m.—Q.U.M.A.

4.30 p.m.—Basketball—Ladies.

5.00 p.m.—Basketball—Queen's vs Toronto.

7.30 p.m.—A. M. S.

Sunday, Jan. 15—10.00 a.m.—Prof. Morison's Bible Class.

Monday, Jan. 16—4.00 p.m.—Class on the English Bible, Prof. Scott.

5.00 p.m.—Students' Orchestra.

7.00 p.m.—Men's Glee Club.

Tuesday, Jan. 16—5.00 p.m.—Mandolin and Guitar Club.

5.00 p.m.—Arts Society.

EXCURSION TO MONTREAL, JAN. 20th. FARE, \$3.65.







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No. 11.

The Philosopher's Stone.

(Address delivered by Dr. W. L. Goodwin before Queen's
Philosophical Society).

(Continued from last issue)

From the 9th to the 16th century the art of transmutation by the philosopher's stone was enthusiastically cultivated in Egypt and Spain, by the Arabs, and then in Germany, Italy, France and England. Hundreds of treatises on the subject have come down to us, mostly written in such mystical language that very little is to be made out of them. But many of these alchemistical tracts contain descriptions of processes which show that the "adepts" were at least making progress in the science of chemistry. The romantic features of some are interesting. All good alchemists acknowledged the mythical Hermes Trismegistus as the founder of the art. Albertus Magnus, writing in the 13th century, tells us that "Alexander the Great discovered the sepulchre of Hermes in one of his journeys, full of all treasures, not metallic, but golden, and a writing on a table of *satadi*, which others call emerald." This emerald table is constantly referred to in the writings of the alchemists. The inscription was said to be in the Phoenician language, and Latin translation (originals?) are given.

Words of the Secrets of Hermes Trismegistus.

1. I speak not fictitious things but what is most true and certain.
2. What is below is like that which is above, and what is above is similar to that which is below, to accomplish the miracles of the one thing.
3. And as all things were produced by the meditation of one Being, so all things were produced from this one thing by adaptation.
4. Its father is Sol, its mother Luna; the wind carried it in its belly, the earth is its nurse.
5. It is the cause of all perfection throughout the whole world.
6. Its power is perfect, if it be changed into earth.
7. Separate the earth from the fire, the subtle from the gross, acting prudently and with judgment.
8. Ascend with the greatest sagacity from the earth to heaven, and thus again descend to the earth, and unite together the powers of things superior and things inferior. Thus you will possess the glory of the whole world; and all obscurity will fly far away from you.
9. This thing has more fortitude than fortitude itself; because it will overcome every subtle thing and penetrate every solid thing.

10. By it this world was formed.

11. Hence proceed wonderful things which in this wise were established.

12. For this reason I am called Hermes Trismegistus, because I possess three parts of the philosophy of the whole world.

13. What I had to say about the operation of *Sol* is completed.

In another tract "*Tractatus Aureus de Lapido Physici Secreto*," ascribed to Hermes, we find the following process for making the Philosopher's Stone:—

"Take of moisture, an ounce and a half; of meridional redness, that is, the soul of the sun, a fourth part, that is half an ounce; of yellow seyr, likewise half an ounce; and of auripigmentum, a half ounce, making in all three ounces. Know that the vine of wise men is extracted in threes, and its wine at last is completed in thirties."

The emerald tablet became the alchemists' Bible. Its mysterious sayings were interpreted and commented upon voluminously, and many an elaborate experiment was founded on them. And the quest was not fruitless. While they did not find the Philosopher's Stone, they found many other things which became useful to mankind in the arts and in medicine.

Towards the end of the 15th century the attention of the more earnest and reputable alchemists was turned towards the healing virtues of the products of their art. The art of making gold became more and more disreputable. The appeals to cupidity could not compete with the merciful science of healing. Before I leave this decadent period of the search for means of transmutation, I will give some specimens of the stories recorded. Mangetus in his *Bibliotheca Chemica Curiosa* relates circumstantially and on the authority of a clergyman of Geneva, M. Gros, 'of the most unexceptionable character and at the same time a skilful physician and expert chemist,' that about the year 1650 an unknown Italian came to that city and was introduced by the landlord of his inn to M. Gros as one who could show him the city. After a few days companionship the stranger complained of lack of money, much to the alarm of M. Gros, who anticipated a request for a loan. But the Italian asked to be taken to a goldsmith where he could have the use of bellows and other utensils. They repaired to a M. Bureau's who supplied them with crucibles, pure tin, quicksilver, and the other things required by the Italian. He left his workshop, that the Italian might be under the less restraint. M. Gros and a workman witnessed what followed. The Italian put a quantity of tin into one crucible, and a quantity of quicksilver into another. The tin was melted in the fire and the mercury heated, and poured into the melted tin, a red powder enclosed in wax being added at the same time. The melted mass became agitated and gave forth great volumes of smoke. When this had subsided, the melt was poured out into moulds and formed six heavy ingots of the colour of gold. The goldsmith was called in, made a careful examination of one of the ingots, and declared that he had never worked before upon gold so perfectly pure. They went to the mint and were given by the mint master Spanish gold coin in exchange for the ingots. The Italian shared the proceeds with his companions, ordered a supper, went out, but never returned, leaving behind him the greatest regret and admiration.

Mangetus gives another story on the authority of an English bishop, who told it to him in 1685, and at the same time gave him about half an ounce of the gold which the alchymist had made:—

"A stranger, meanly dressed, went to Mr. Boyle, and after conversing for some time about chemical processes, asked him to furnish him with antimony and some other common substances. These were put into a crucible which was then placed in a melting furnace. As soon as they were fused the stranger threw a powder into the crucible and instantly went out, directing the attendants to let the crucible stay in the furnace until the fire died out, and promising to return shortly. This he never did—so Boyle examined the contents of the crucible and found them to have all the properties of pure gold."

Helvetius in his *Titulus Aureus* tells of another mysterious stranger who showed him a yellow powder which he affirmed to be the philosopher's stone. He gave Helvetius a portion of it, with which Helvetius, in the presence of his wife and son, converted six drachms of lead into what a goldsmith pronounced to be pure gold, which opinion was confirmed by Porelius, master of the Dutch mint, who had the gold assayed.—(From Thomson's History of Chemistry).

Many such stories are on record, all told in dead earnest, but reading like tales from the Arabian Nights.

But skeptics there were, and some of them have put themselves on record. The ill repute of the alchemist in the 17th century is quaintly brought out in a work on the metals published in 1683,—being a translation from the German with comments by "Sir John Pettus, Knight, of the Society of the Mines Royal." He writes:—

"Now I have shown the seven gradations to a chemist (miner, washer, stamper, melter, finer, refiner, prover or assayer), so I must tell you he looks on himself in a higher degree and justly defined, according to the Lord Verulam; for he not only knows all these seven gradations, but also knows how to extract Quintessences, or several marvellous works out of all, and if he would stop there (as Erkern doth) it were well for him, but it seems he cannot be content, unless he attains to the high *Elixir* or *Powder of Projection* or *Philosopher's Stone*, which is believed by some of them to have a power of *transmuting* or turning all other *metals* into *gold*; but by woful experience of some men's credulity, instead of turning everything into gold they have turned all their gold into nothing, (Verulam)."

"Now as for the word *Alchemist*, it is the same thing with chemist, but usually taken in an imperfect or ill sense (like Ben Johnson's *Alchemist*), i.e., one that can or pretend to counterfeit metals; so to sum up the chief term, an assayer judgeth of the purity of metals, and the chemist improves this purity to spirits, quintessences, virtues, &c. But the alchemist counterfeits and adulterates them, by making them appear to be pure which really are not pure, but mixed with other sophistications (Verulam). Of this latter our author (Erckern, whose book Pettus edits and amplifies) is not guilty; so as he stands for a renowned assay master, a good chemist, and one that understood, but was not a sophisticating alchemist, nor a lapidarian philosopher, or metaphysical projector."

(To be continued).

Science Dinner.

THE fourteenth annual dinner of the Engineering Society, held in Grant Hall, the 20th of December, is now but a fond recollection of a happy time that has gone. About 300 members of the Society, professors, graduates and guests assembled at the festive board and having partaken of the excellent menu provided, listened to an evening of speech and song. Grant Hall was appropriately decorated with transits, level, steam drill and rifles which set up on the platform stood out boldly against a background of palms and ferns. The electric lights were shaded in the college colors and lent a very pretty effect to the whole scene of merry banqueters. An orchestra was stationed in the gallery and led the students in their songs. The whole scene was one of much jollity and jubilation. The faculty song, sung by A. Bertram, W. Manhard, N. Armstrong and A. Haffner, scored a home run hit with the audience right at the start. Though the toast list was a lengthy one the speakers held the interest of the students till the end when the banquet broke up in the "wee sma' hours."

President T. S. Mills, B.A., having welcomed the guests, called for the toast to the King. This was honored and he called on Mr. W. F. Nickle, M.P.P., to propose the toast to the guests. In a speech full of enthusiasm, he touched on the rapid growth of the province of Ontario and of Queen's. He was satisfied that the Ontario government did not do amiss when it gave \$100,000 towards the erection of the new chemistry building.

His Honor, Lieut.-Gov. Gibson, responded to this toast. He remarked at the beginning of his address that this dinner was the best college dinner that he ever attended. He referred to the time, when he was a boy, all the public positions in Canada were occupied by the English, Irish or Scotch. Now almost all the public positions were occupied by natives of Canada. We have special characteristics," he said, "which differ from the English, Irish or Scotch. We are all distinctly Canadian and are rather proud and rejoice when we see any evidence of Canadianism. The term colonial had outlived its usefulness when applied to Canadians." The speaker gave a glowing description of our agricultural, mineral, timber and fishery resources and referred to the remarks made by the premier, that while the nineteenth century belonged to the United States, with the marvelous material, social and intellectual advancement made, the 20th century was ours. Lord Strathcona estimated that the population of the Dominion would be 80 millions in the year 2000. J. J. Hill predicts it will be fifty millions in less than fifty years. "As a country we cling to the Mother country. We are not bound by ties of obligation but by ties of filiation. Our aspirations were for a prolonged period of peace with our neighbors to the south." In a fitting peroration His Honor exclaimed, "You engineers more than any other body of educated men in the country have more to do in the application of knowledge, in initiating and carrying out projects for the bettering of our country. I know of no profession so important at the present time as the one to which you belong."

Prof. A. MacPhail proposed the toast to "Our Guests." Though a member of the staff he felt he was there as a guest. He congratulated the guests on the delightful way which they gathered with the students and hoped that they might catch the spirit and the atmosphere of good fellowship of the scholars of the School of Mines.

Prof. H. E. T. Haultain responded. In a humorous manner he compared the students at Queen's to a tribe of savages. He recognized that if a student were a savage to be a successful savage he must live in savage conditions. He was inclined to think that there were such savages down here. There was an intense loyalty to the tribe, an independence of the individual and a remarkable lack of responsibility towards everything outside the tribe. He was impressed with the *esprit de corps* of the Queen's tribe, and so loyal were they to their own tribe that they were able to extend such a hearty welcome to the ambassadors of other tribes.

Dr. Barlow also responded to this toast in a short speech in which he referred to the manner that Queen's had spread and he looked with pride on the way she had progressed.

D. M. McIntyre, K.C., in a very brilliant speech proposed the toast to "The University." He congratulated the Engineering Society for proposing this toast rather than "The School of Mines." He eulogized the work of the versatile Dean of the faculty and the efforts of the late Principal Grant in launching the School of Mines, whose growth and influence had justified the foresight of the late principal. As he saw the walls of the new building called by Sir J. P. Whitney, "Gordon Hall," he couldn't help but think that there before many years some Faraday will draw some secret knowledge which baffles men of science to-day which will extend the comfort and happiness of mankind.

Principal Gordon replied. Although this dinner was the third function of its kind that he had spoken within a short while, he was in splendid form and his remarks were pregnant with excellent advice to the students. "An engineer," he said, "comes with a well trained mind, a well balanced judgment a spirit of fairness and justice and love of truth."

Dean Dupuis also responded to this toast. In a happy, reminiscent mood he told of the trials and tribulations which Queen's had undergone in the past and was sure that the different faculties would be brought into a more harmonious relationship in the near future.

In proposing the toast to the "Profession," R. W. Leonard, C.E., gave some practical advice to the embryonic engineers and dwelt on the necessary qualifications for a successful engineer.

A. B. Willmott and T. A. Russell responded. The latter told of the great development of the automobile industry and prophesied that there was just as great a development for commercial purposes to be yet undertaken.

Dr. Goodwin proposed the toast to the "Graduates." This dinner was the first one where he had seen so many graduates. He referred to the combination of influences which the students owed to the School of Mines—the teach-

ing of a body of men who are in active contact with the outside world and can tell the students this. They owed a kind of activity which gives them an insight into organizations. The students who organized and carried out this dinner, the speaker thought, got lessons as valuable as any piece of work they got in the School of Mines.

L. Bruce, '09, and M. Orr, '07, responded. In proposing the toast to the "Faculty," H. Bradley spoke of the good feeling existing between the faculty and the students. The professors were not only teachers but friends.

Profs. W. O. Walker and M. B. Baker responded. They claimed that the relations between professors and students were always cordial and never strained.

"Sister Institutions," proposed by R. H. Hutchison, brought excellent responses from the representatives of McGill and Varsity.

J. B. Stirling, B.A., proposed the toast to the Ladies and handled this delicate subject with ease. N. B. MacRostie came in on the soft pedal in the response.

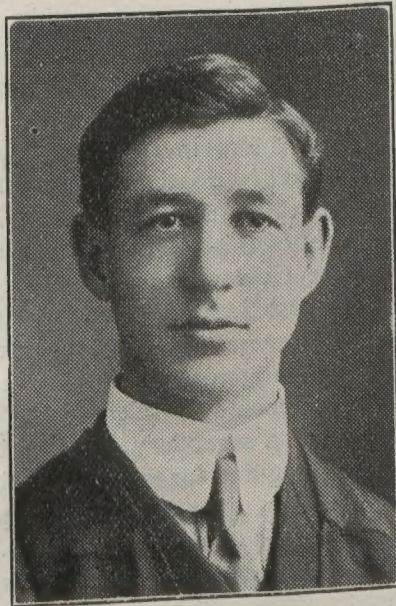
The Aesculapian Society Constitution.

AT the last meeting of the Aesculapian Society the report of the committee charged with a revision of the constitution, submitted its final report suggesting radical and important changes in the body of rules defining the purposes and directing the functions of the principal organization amongst medical students. The report as accepted practically recasts the constitution that has been used up to the present. It eliminated useless clauses, added others that appears necessary to meet new conditions and made numerous substitutions, with the result that the new constitution is as nearly perfect as any in use at the University. The principal changes relate to the expenditure of money, the function, constitution and precedence of the Medical court, and meetings of the executive of the Society. The aim of the new clauses dealing with finances is to provide for a business-like manner of the settlement of accounts against the Society. Further than this it is provided that no payments may be made from the funds of the Society in advance of a report on the matter from the executive. That body is now required to meet before each regular meeting and report its consideration of all contemplated outlays, bills in the meantime having been duly received by the secretary of the Society.

The remaining clauses bearing on the handling of the Society's funds restrict the payment of money to any committee except the Entertainment committee of the Medical dinner. Bills incurred by any other committee are to be paid by the treasurer to the party filling the contract.

The changes in the constitution and procedure of the Medical Court are far reaching and provide for trial of all offenders in a manner approaching as near as is practicable to that of the regular court of justice. The presentation of charges is made the subject of change and it is ordered that the jury, elected annually is to report on the offense deciding whether or not it is of sufficient importance to be heard by the Court. A second jury chosen from the members of the Society with the approval of both parties to a case renders judgment on the evidence submitted in the course of the hearing.

The new constitution also provides for the appointment of a critic for each meeting and will become operative at once. The committee responsible for the revision that have brought the Aesculapian constitution into harmony with the present day conditions consisted of Mr. M. A. McKay, Mr. Patterson, President McCammon and Mr. R. A. Dick.



W. Dobson.

Queen's University Journal

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Editorial.

THE Aesculapian Society has passed a resolution recently expressing its conviction that the provincial restrictions under which the medical practitioners in Canada now labor are prejudicial to the highest interests not only of the medical profession, but also of the public generally." The resolution further expresses the views of the Society on the important questions of Interprovincial Reciprocity and Dominion Registration. The Society heartily endorses any attempt to substitute either of these broader and more enlightened systems for the conditions existing at the present time.

The action of the Aesculapian Society in this matter is to be commended. The question of Dominion Registration of medical practitioners has come within the realm of the practical and needs the active support of those who are not wedded to the system of Provincial Councils or Examining Boards. A bill involving proposals to modify existing conditions is before the Dominion Parliament at the present time. It was with the object of lending any support possible to the authors of this measure that a resolution was adopted by the medical students at the University.

The maintenance of separate Examining Boards with distinct standards and requirements by the various provinces of the Dominion without some bond of connection is now generally recognized as a vexatious restriction and an undesirable in effects. It appears to relegate the question of standards which is of great importance to a secondary place and emphasize the closed corporation features of council regulations which probably are only incidental. In all proposals bearing on the modification of the present system the maintenance of high standard of efficiency is not attached. This much is to be left inviolate for it constitutes the surest means of safeguarding the interests of the public and assuring progress and high ideals in the medical profession itself. The aim of all modifications is to keep the standards high and mini-

mize that which is vexatious and provincial. Inter-provincial Reciprocity or Dominion Registration appear at the present time the most obvious means of eliminating provincial restrictions. The first system would bring the provincial bodies into relationship and tend to make standards and requirements uniform. It would serve as an indication that the Examining Boards of the provinces are not instruments of closed corporation intentions, but guardians of the interests of the public and practitioners. Dominion Registration would achieve the same ends and is probably the means that will find acceptance in the effort to remove the defects of present conditions. If the resolution of the Aesculapian Society serves to any extent to show that a portion at least of the coming generation of medical view provincial restrictions with disfavor it will have been adopted to good purpose.

The Railway Commission, organized and given its being within the past decade, charged with the regulation of certain features of the operation of transportation lines and later given widened powers in connection with other public service concerns, continues to prove that such a body has a rightful place in commercial life. Its most recent decision is that in regard to the tariffs of express companies doing business in Canada. It has intimated that the schedules of rates at present in force are too high and has issued an order that new schedules must be submitted to it by the companies. Connection between certain railway companies and the express companies with which Canadians are most familiar is at the same time announced. In explanation of the rates charged by express companies in the past the extreme over-capitalization is indicated. Three and two millions of stock represent original investments of \$27,520 and \$24,500 respectively. On this vast amount of watered stock dividends have now to be paid. The Commission suggests as a remedy that dividends be paid on the real capital of the companies. The accuracy of the facts revealed by the Commission and the justice of its observations and actions are scarcely open to doubt. The new schedules if drawn up and enforced will prove of great advantage to Canadian shippers. But the value of the Commission's work in the whole matter lies in the fact that it has presented to the public conditions ascertained through careful and impartial investigation. By such means it performs the great function of standing between the people and the corporations on which they depend for important services. Enforcement of lower rates or other orders of the Commission constitutes another aspect of its task. Public opinion, however, when acquainted with facts slowly but inevitably brings about change if such is necessary.

Ice-cream, an article of diet with a status half-way between a drug and a food, the prime source of glamor of menus, a perennial palliation of vis-a-vis sessions, the basis of many plans with unmasked motives has become an object of government investigation. Samples have been submitted to analysis by experts and results published. Those responsible for the investigation advise a standard percentage of milk-fat pointing out that while some ice-cream has 30 per cent. of cream much has 10 per cent. or less. It is further indicated

that ice-cream is a frozen product, made from cream and sugar, with or without harmless flavoring and coloring materials, with or without gelatine, gum trogacanth or other harmless stiffening materials, in amount less than two per cent. And thus the glamor of the ice-cream parlor is dissipated. Men and women, boys and girls must ponder while they eat where formerly the ice-cream itself was an invitation to a care-free mind. Gentle thoughts of the delectable dish, or other things, happy and purposeful conversation, the incidents of an ice-cream seance are to be disturbed by ideas of harmless drugs and percentages. Wonder and doubt are to lessen satisfaction. The ice-cream course and the ice-cream plate may become sources of suggestion of evil. To this tragic result has paternal government with its restless eye and endless vigilance brought us. Barrels of apples sent out of the country like some third class specimens are not as good at the centre as externals would indicate. Butter and cheese occasionally fall below the standard. Many prepared foods have more of drugs than nutritive compounds. Now the public learns that the milk fat content of ice-cream shows a wide variation. There is but one source of hope. That lies in the steady appeal of things that suit the palate. In this class is ice-cream. Through the fact of its pleasure-giving properties it may stand fast in public esteem and bury government reports under indifference. The great consolation of the last report is that no cases of adulteration are recorded. Against other defects the human eye and sense of taste and official analysis must be the court of last resort.

Ladies.

Of Keys.

THE key of which this dissertation treats is not the work of a locksmith, but of a philanthropist. It is otherwise known as a "handy, literal translation." In the eyes of a professor, it is corrupter of youth, a stumbling block in the primrose path of knowledge, the slayer of originality, an odious approximation to truth. To the student, the key is a joy forever, a present help in trouble; the sword Excalibur before which heathen foes fall vanquished, the trusty Œdipus who solves the riddles of the text-book, Sphinx, his guide, philosopher and friend.

The key is perennially useful. It is indispensable for a freshman in measuring Xenophon's parasangs, or dividing all Gaul. Even a senior may receive friendly aid to effect an easy entrance into foreign realms of gold. It is true that some hardy souls burst open the doors of knowledge with the brutal force of intellect. But this process makes a noise in the world, whereas the work of the key is seldom heard. A key is a valuable training for the memory, and for intellectual gymnastics, an interlinear key is unsurpassed. Without its timely assistance, in what mazes of error do we become entangled! Consider, too, the unpleasant situation in which we involve brave heroes, and charming heroines, when depending on the broken reed of our own knowledge. No student who had used a key, would dream of sending Goethe's "plignon"

past an "old brute of a dragon." Why does not Wordsworth tell us somewhere that Shakespeare himself used a key—to unlock his heart withal.

Keys have a wonderful influence on the student, physically, mentally and morally. A person addicted to their use invariably closes the eyes, and sways the body rhythmically when translating. The mind is well stored with useful information without having its delicacy impaired in struggles with obdurate texts. Keys give a docile nature and an attitude of implicit trust to the proudest, a sense of security to the storm-tossed soul.

Keys, therefore, are frequently used in obtaining B.A.'s. When the student enters the college of experience to learn the rest of the alphabet, he mourns the loss of these trusty aids. O Undergraduate!—

"This thou perceiv'st, which makes thy love more strong,

To love that well, which thou must leave ere long."

—Contributed.

Prof. M-n:—"Our friend of the Canadian Archives while in England saw a unique manuscript and immediately coveted it for Canada. He enquired whether the King had any objection to his honouring it. At present this document reposes among many others at Ottawa and there appears to be little possibility of its ever seeing English shores again. In this way Canada is acquiring an extremely interesting and valuable collection of manuscripts."

The Y.W.C.A. held its first meeting of the new year on Friday, in the Senior Latin room, Miss Playfair presiding. A very interesting paper was read by Miss A. T. Carlyle on "The Strangers Within Our Gates." Many of our girls are deeply interested in the Western problem and in the discussion which followed many pathetic and rather humorous incidents were related of experiences in the Danish, Swedish or Hungarian settlements where the girls spent their summer.

Arts.

THE Arts students welcome Vice-Principal Watson back to Queen's. His recent honors which are honors to the University as well, have made us more thoroughly appreciate his work, and his return is gratifying, not only to those attending philosophy classes, but to all the students in Arts.

Rev. D. C. Ramsay, M.A., has returned to his pastoral work at New Liskeard. We shall miss him in every department of our busy student life. Just at present we feel that the Mock Parliament will suffer because of his departure, but of course we cannot expect to have such grand old seniors always with us. Once more we wish him every success.

Mr. W. A. Sutherland has been appointed secretary of the Y.M.C.A. for the remainder of the session. About a year ago it was agreed that a permanent secretary giving all his time to the work was needed here as in all the

other Canadian and American colleges of any importance. Rev. R. C. Jackson, B.A., a graduate of Queen's, accepted the position, but on account of ill-health could not be present at the opening of last session. The executive hoped that Mr. Jackson would at least be able to enter upon his duties at New Year's, but his continued ill-health has compelled him to resign. In the past few months a great amount of work has accumulated which will keep Mr. Sutherland busy. A permanent secretary must be secured for next session. plans for a building have to be worked out and efforts made to secure more co-operation among the religious work societies of the University and to cope more thoroughly with the problems presented here.

The debate before the Political Science Club which was to take place on Thursday last, was postponed indefinitely on account of the illness of one of the debaters.

Science.

WE have recovered now from our several attacks of turkey-grippe, roast-goose consumption, mince pie melancholia and plumpuddingapthy. Let us, then, make hay while the sun shines, for who can foretell the day when he will develop a dancing fit. Well it is that the microbes of such diseases flourish in certain seasons only; but lamentable is the fact that, having once suffered from these maladies, one is not immune from future attacks. We must struggle on, avoid infection as far as possible, and, if the attack is inevitable, make a rapid recovery; for only thus can the afflicted ones hope to combat successfully the spring fevers.

At the regular meeting of the Engineering Society, on Friday, Jan. 6th, Prof. Willhofft, the honorary president, gave an address on "Aviation." After alluding to the reputed attempts of the ancients at flying, he gave in brief the history of the balloon from the time a man first ascended in one, in 1783, to the present, when Count Zeppelin, in a 485 ft. monster, carrying 20 men, is able to oppose any wind except a hurricane. In 1783, the scientist, Charles, made a balloon of rubbery envelope filled with hydrogen gas, using a network of ropes to suspend a car. This construction, modified only in detail, has persisted to the present. To control the motion of a balloon completely and combat any wind that blows, a speed of 34 miles per hour must be obtained. This was impossible of course before the development of the light and powerful gasoline engine, the introduction of which has been mainly responsible for the present high state of development of the dirigible balloon.

Competing with the dirigible balloons in popular interest at least, are the "heavier-than-air" machines, the aeroplanes. In 1905, after four years of secret experimenting, the Wright brothers flew without the aid of gas-bags. All the development since their first success has been trivial compared to the advance, which they made in aviation. But the Wrights themselves give credit, where credit is due. The success of their efforts was due in no small

degree to data collected by Lilienthal from the results of 2,000 or more short flights, which he made himself, on various styles of "wings," while systematically and scientifically trying to solve the problem of flight for human beings.

But the problem of producing a commercially successful flying-machine is not yet solved. In spite of the daily breaking of records for altitude, distance, etc., the fact remains that the aeroplane is still only a dangerous toy. The Professor facetiously pointed out that the present manoeuvres in the air at exhibitions, etc., signify no more in the development of the aeroplane, than shooting the Whirlpool Rapids in a motor boat does in its development. Whether the problem of stability in aeroplanes is solved by the use of the gyroscope or other means, it is confidently expected that the general public will some time be enjoying "aviation" as they now do motoring.

It is gratifying to note how promptly and readily the graduates and other friends of the School of Mining are responding to her call for assistance. The \$40,000 given by Prof. Nicol for the erection and equipment of the proposed metallurgy building has proved insufficient. An additional \$20,000 is needed. The graduates and friends of the School of Mining have been asked to subscribe this sum. A committee has been formed of those graduates who reside in Kingston and so energetically have they entered on this work that already about one-third of the money required has been subscribed.

The construction of the building will go on this year and, if possible, be completed before next session.

As the great majority of subscribers are young graduates just starting their life work, the total sum subscribed is a handsome testimony of their devotion to their Alma Mater.

Medicine.

THE Medical Dinner was a complete success from every standpoint, and thoroughly enjoyed by all who attended. The menu was good, the card itself well prepared, and it was catered in first-class style, and promptly.

The usual round of toasts were carried through, and besides the usual quota of college speakers, the company listened with much pleasure to Mr. W. F. Nickle, M.P.P., Dr. Armstrong and Dr. McPhail, of Montreal. The two latter spoke mainly in the interests of the Canadian Medical Association.

Much of the success of the dinner is due to the prompt and efficient services of our fellow student waiters, and our thanks for the same are freely offered.

A few Medicals may be seen in the hockey practices. Most of those present, however, have not yet discussed direct and indirect violence.

The Medical Faculty has published a neat little pamphlet entitled, "Publication No. 2," which contains some interesting technical articles, as well as

a few terse comments by Dean Connell on the Report of the Carnegie Foundation Committee on Medical Schools in America.

A medical student is somewhat of an anomaly. True he is in college and subject to training, but if consulted on any of the technical subjects which he daily studies, he is supposed to know nothing and to do nothing in regard to the same. It is only when he is through college and has rounded out a year's work in a hospital and passed a licensing board, that he is in a position to turn his training to account. Truly, we are good waiters.

The Medical classes resumed on Wednesday, the 4th, with a very good attendance. Some did not return until the 9th.

Dr. S. M. Polson, '10, of Lincoln Hospital, New York, was in town last week.

Dr. B. J. Dash, '10, of Riverside, N.B., spent a few days in Kingston just before Christmas. Dr. Dash is in practice.

Mr. E. E. Steele, '11, is progressing favorably after an operation for appendicitis.

Theology.

IT is a matter of keen regret to all Queen's students, and especially to those in Divinity Hall, that W. Dobson will be absent from college during the remainder of the session. His vigorous, genial spirit, which had gained for him a distinctive place among his fellow-students is greatly missed. It is no small sacrifice for such a man to give up even for a time the student-life at Queen's in every part of which he so actively participated. Dobbie's welcome next autumn will be all the heartier, because of his enforced temporary absence.

We are always keenly interested in the work and welfare of the men who go forth year by year from the Hall. The following extract, from a recent number of the Presbyterian Record, describes a journey of Rev. G. A. Wilson, Superintendent of Missions in British Columbia, and tells of the excellent service which is being rendered by one of the strongest of our graduates:—

"At Fort George, I reluctantly parted with my faithful pony, which had never once failed me, during those fourteen days over the rough trails, and I boarded the B. X. steamer, which was to carry me down the Fraser, 120 miles to Quesnel, the chief town in Cariboo.

After a vacancy of nine months, I found the congregation rapidly reviving under the leadership of Rev. W. Stott, who graduated last spring from Queen's, and who had taken hold of the work in splendid fashion. So well were the people responding to his leadership, and so much were they attached

to him, that I found them willing to extend a call, which I was pleased to moderate, even without authority of Presbytery, an act which was afterwards graciously condoned by the Presbytery with the single comment that they would have been better pleased had I inducted him as well.

The call has been accepted, and the induction will take place as soon as the convener of the Presbytery, Rev. D. Campbell, of Armstrong, can find time to make the stage journey of 220 miles for the purpose.

All honor to the men who have volunteered to spend and be spent in the service of the church on the frontier. And on the honor rolls of the church should be written the names of Ross, of Fraser Lake; Wright, of Fort George, and Scott, of Quesnell. No church is poor which can secure such men to pass by the soft places, and "endure hardness" on the frontier."

Next Friday afternoon at 5 o'clock, at the Queen's Theological Society meeting, Prof. McClement will give an illustrated lecture on the subject—"Conditions Affecting Organic Progress." All students are cordially invited.

Education.

AT the time of writing the majority of the students of the Faculty will be observing in various ungraded schools throughout the province. As many of the class have never been in an ungraded school, it is very interesting as well as essential to all the methods employed there and to note how graded school methods fail when one teacher has charge of every class and every subject on the curriculum, and at the same time is expected to do almost as efficient work as the teacher in the graded school.

When we consider the number of students who attend and the majority of teachers who teach in such schools, we believe that a great deal more attention should be given to such work in our primary training school, than it receives at present.

Some very interesting experiments are being carried on at present along educational lines by Dr. Kerchensteiner, of Munich, Germany. He has been making additions in the industrial schools to the vocational training of apprentices in what the author of the system calls "life lore" and "citizen lore."

At the continuation schools apprentices are required to spend one day each week until they reach the age of eighteen. The education is free and they are paid for the time they spend in school just as they are for the hours of work in the shops. This part of their education is carried on with the advice of the employers of the various trades in Munich. The pupil spends most of his time in learning about his own trade under conditions which tend to promote efficiency in both practice and theory. The following is the curriculum of a coppersmith's apprentice:—

"First year—A short survey of apprenticeship and the apprentice's contract; the structure of the human body; nourishment; breathing and circula-

tion, care of the hair and teeth, houses and clothes, work and recreation, sports; the dangers to health in the coppersmith's trade, especially the precaution to be taken against dust, acids, soot, gases, and smoke; first aid to injured.

"Second year—Brief history of the coppersmith's trade in general, standing of the craft in the middle ages, the flowering of the German trades and crafts, their downfall, the development of the present trade organizations (guilds, partnerships, labor unions, corporations, Boards of Trade, etc.); the trade to-day, factory work, hand work, cottage work; the history of Munich's coppersmith guilds; the strongest possible emphasis upon the relations of master, journeyman and apprentice, and their several responsibilities and privileges.

"Third year—The organization of the community, the mission of the community, social and economic institutions, the workingman as a townsman; Bavaria; the founding of the German Empire; the more important Imperial laws; local ordinances; workmen's protection and insurance, patents, etc.

"Fourth year—Trade and commerce and what they mean for German labor and the well-being of Germans, Germany's place in the world of trade and in the world of culture, the significance of the German colonies, Germany's representation abroad (Consuls, etc.); discussion of important practical problems in the light of fundamental social laws; history of coppersmithing and the metal trades from the days of ancient civilization to our own times."

Exchanges.

A Happy New Year to all our Exchanges! Many have come to us in holidays clothes, and bringing a Christmas message. We wish them Godspeed for 1911.

After 'Xmas Exams.:—

"Of all sad words by tongue or pen,

The saddest are these—

I'm plucked again."—Ex.

Hope still, it may be better in April. The warning is timely.

All the world's a stage, and a lot of people are riding on it who ought to be put off for beating their way.—St. Ignatius Collegian.

We venture a joke on an egg at the risk of it being 'old':—

Prof.:—What part of speech is "egg"?

Student:—A noun.

Prof.:—What is it's case?

Student:—The shell.

Prof.:—What is it's gender?

Student:—Can't tell till it's hatched.—"Red and White."

Athletics.

Hockey—Queen's 9; T.A.A.C. 8.

THE hockey season was officially opened Saturday, with an exhibition match between Queen's and T.A.A.C. The win at the beginning of the year is a good omen. May the fates continue auspicious!

With Queen's the main object was to get a line on the new material which must be used this year. We had hoped to have a larger nucleus of veterans, but classes have so far kept Trimble out of the game, while it is but a few days ago that a report came like a bolt out of the blue that Dobson has been called home, and may not be able to play this year. For some six years Dobbie has been the mainstay of the team, a man quite capable of taking his place among the very best pro. teams in the land, and consequently we feel his absence greatly.

The game on Saturday was played in three periods, in each of which new men were brought out to be tried. As a result there was a lack of system about the play which rather disappointed the rooters. However on Saturday's showing, a first team can now be picked which will play together all week, and by next Friday should be in good shape to meet Varsity.

The ice was in very poor shape as a result of soft weather on Saturday. Stick handling was rendered very difficult, and though there were some brilliant rushes by the George brothers, who both played better perhaps than ever before, in the main the puck was batted ahead, and the player hastened after it.

The teams took the ice very late. The Toronto train was late, and it was nearly nine when T.A.A.C. reached the city. The rooters went through their regular course, first shouting, then singing, and then making more or less humorous remarks at the fussers in the gallery. Finally they were reduced to dumb silence, and sat unhappily until the teams appeared.

In remarking on the good points of the players we need not mention last year's men, Vic. Gilbert, Grieg and Basil George. Their ability is well known, and when we say that they surpassed their work of last year, it is enough. Of the new material Meikle at centre, and McKinnon on the wing made a very favorable impression. They are hard, consistent players, and handle themselves well. Smith played a steady game, but needs to increase his speed. Box is very good too, but could improve in shooting. Ed. Elliott was tried out at point and did good work. He looks like a mountain on skates, and if we are to describe him in the glowing language of the sporting page we must call him that term, 'abysmal leviathan,' which Jack London used of Jeff. in the advance notices of the late lamented affair at Reno, Nevada. For a big fellow he has great speed, and if he learns to moderate the gentle shoves with which he puts his adversaries into the boards, should make good.

There was one rather disappointing feature about the match, and that was the amount of slugging indulged in. There is really no excuse to it, and though we cannot adopt the fines of the pro. team levied on men who spend

periods on the timers' bench, our men should realize themselves that they are not being fair to the college they represent, when for an exhibition of temper, they are taken out of the game for a while.

Friday evening will see Varsity here for the first league game. They are reported strong, so turn out, everybody, and help by cheering at least. We have had sufficient Varsity wins this last year. It is time for a change. The team was as follows:—

Goal, Gilbert; point, Elliott (Blakesly); cover, B. George; rover, G. George; centre, Meikle (Box); right wing, McKinnon (Macdonnell); left, Smith (Fraser, Goodwin).

Oswego Model School 45—Queen's 26.

Shortly before Christmas the first team journeyed to Oswego to meet the Model School there. They were beaten 45 to 26, but can feel proud that they scored so much. They were handicapped in several ways. In the first place they played under American Intercollegiate rules which allow a style of play requiring heavy, padded suits, knee guards, and even nose guards. When our men appeared in their light gym. suits they were objects of wonder and curiosity. The team did not at first grasp the need for defensive armour, but when their opponents tackled them around the neck, and charged them like bulls by way of checking, the need became apparent.

Under this style of play size and weight counts. If we are to accept the account of the team themselves, they were considerably outweighed. In fact as far as we can grasp it Erskine was to their smallest man as a pigmy to Goliath of Gath, as Shear to North—as, but, though we could continue the proportion ad infinitum, we have gone far enough, if we have conveyed the idea that our men were not as large as their opponents.

Size did not count in every case, however, for Percy Menzies could dodge under the arm of the giant who marked him, and score at will. He poked in five baskets. Erskine had the honor of scoring more baskets on his cover than any man has so far this year. As the Model School have been unbeaten in nineteen games this is no inconsiderable honor. The defence, composed of Watts and Stearnes, played a faultless game, checking and passing well.

About twelve hundred saw the game. If we can get a quarter of that number to the game next Saturday afternoon at five, we shall be happy. There is no reason why every student should not turn out. The team this year is going better than ever before, and we must win at least one championship. Varsity is bringing along a strong team, so the game will be well worth the watching. The team in Oswego was:—Wardle, Menzies, Erskine, Watts, Stearne.

'13 Ladies vs. '14 Ladies.

Last Saturday was another red letter day in the history of basketball at Queen's. For the second time we were permitted to watch a contest between two ladies' teams. It was well worth watching. Not only do the girls dis-

play great skill, but their game is marked by a certain sweet reasonableness and a visible enjoyment which might well be adopted to some extent at least into the sterner contests of the men.

Of course there are now and then funny little incidents which cause some mirth among the spectators, and really add to the enjoyment of the game. Travelling with the ball is something which the girls should avoid more carefully.

Combination seems to be their long suit. Some beautiful work was done, and after the more or less ragged exhibition of passing which even the first team indulges in on occasions, the girls' unselfish team work was a treat.

Thirteen won by a good margin, but Fourteen has no cause to feel disgraced. It was the remarkable shooting of Miss Henderson, who was responsible for no less than sixteen points, which gave her team such a lead. Fourteen played extremely good ball, and with a little more attention to the shooting department should give any of the teams a hard run.

For Thirteen Miss Henderson was the star, in fact her play marked her as the best on the floor. Miss Nash did some nice shooting, while Miss Aherne at defence gave her cover very little chance for a shot.

For Fourteen Miss Warren at defence was specially conspicuous. She has a great faculty of getting in the way of passes no matter to whom they are directed. Miss Wright and Miss Hume each scored a couple of baskets, and showed real basketball ability in their general work. The teams lined up as follows:—

'13 Ladies (24)—Miss Nash, Miss Drewry, Miss Henderson, Miss Brownlee, Miss Aherne.

'14 Ladies (10)—Miss Wright, Miss Hume, Miss Smith, Miss McCuaig, Miss Warren.

'11 First Team vs. '14 First Team.

The infusion of new blood into Eleven this year has worked miracles. So far Eleven is the only undefeated team, and on their showing on Saturday should make any team in the college go the limit to trim them.

The Freshmen were their prey this time. Of course it is but fitting that the senior year should trim the freshmen, otherwise the seniors would have some difficulty in maintaining that statuesque dignity which it is their wont to display in the presence of youth.

The score of 54-26, however, hardly represents the play. In the first half Eleven simply ran away from their opponents, and taking advantage of the fact that the freshmen's defence was somewhat disorganized, scored almost at will. The second half was very different. Fourteen took a new lease of life, and in face of the huge score against them, looked dangerous till the closing minutes of the game. Fourteen should practice a few times together, for they have abundance of the very best material.

For the winners the forwards, Gilbert and Jemmet, radiated and scintillated. Vic. Gilbert scored 22 points, while Jemmet was responsible for 20. Casselman played a splendid defence game.

McCartney for '14 was one of the best men on the floor. Not only did he do most of the scoring for his team, but he helped the defence out as well. Embury played a hard game, but as yet lacks shooting ability. The teams were as follows:—

'11—Gilbert, Jemmet, Brewster, Casselman, H. Smith.

'14—Jones, Sherril, McCartney, Truesdell, Embury.

The second teams of '11 and '14 met the same afternoon. The '11 seconds were victorious by the score of 35-15. For a time in the first half '14 looked dangerous but '11 steadied down and drew ahead.

The teams lined up as follows:—

'11—McBeth (Davis), Stewart, Buchanan, Wallace, McDonald.

'14—Lawson, Dougherty, McCartney, Raitt, McKenzie.

*McBeth was hurt shortly after the commencement of play, and had to retire.

Track.

We should like to remind the students of the Indoor Athletic meet which will soon be held. Entry lists are now open, and as they close about the eighteenth, each one should see that his name is placed on time. The track events range from the quarter to three miles. To avoid danger, all the events will be run against time. Those entering the pole-vault, jumps, etc., may practice at the same time as the boxing, Fencing and Wrestling Club.

Silver medals will be awarded provided a certain standard is reached; otherwise the winner of an event will receive a bronze medal.

As the events are all handicap, every man has a good chance. Track and field work can stand a lot of development around Queen's, and now is the time to bring forth new material. Any man with ability should consider it his duty to take part. Remember, the lists are open now.

Hockey Season Tickets for Students—Four Games For One Dollar.

By special arrangement the Athletic Committee is able to make the above offer. At least 200 must be sold to cover guarantee. Last year 325 were sold. This year, so far 150 have been sold. These tickets are good for every game in which Queen's play and besides the Varsity and McGill games there will be lots of opportunity to use them. Students not having these tickets will be charged 50c. for the big games, so we should strongly urge everyone to get their tickets in time for the Varsity game on Friday night. They can be secured from Miss Edna Henderson, W. G. Cameron, College P.O., Physical Director, or from the Secretary of the Athletic Committee.

Gymnasium Subscriptions.

Previously acknowledged \$714.80. \$25, W. G. Brown; \$10, W. E. Jenkins, Professor MacClement, Dr. L. H. Dawson; \$5, J. A. McDonald, B. & G. George, Professor M. B. Baker, L. A. Kinnear, A. U. Meikle, R. Brydon, R. A. Rodgers, J. W. Forrester, F. B. Goedeke; \$3, R. W. Brown; \$2, Walter Hubbell, D. A. Ferguson; 75c. Anonymous. Total \$822.55.